SECTION 4: LANDSCAPE ZONES AND MANAGEMENT AREAS

4.0 LANDSCAPE ZONE ANALYSIS

In order to direct and clarify management activities within Sand Point Magnuson Park, the Park has been divided into ten Landscape Zones (LZ) for this Vegetation Management Plan. The LZ's are based on areas defined by vegetation types, patterns of use, or geographic distinctions within the Park. The ten Landscape Zones are mapped and labeled on Figure 4-1, located at the back of this Section 4. Within each Landscape Zone may be one or more Management Areas (MA), which are specific areas where regular maintenance activities are necessary to restore, maintain, or nurture the targeted vegetation or vegetation communities.

Table 4.1 provides a summary of the approximate acreage of each Management Area within each of the Landscape Zones. For the 'built' zones in the Historic District, acreages of the Management Areas were not calculated.

Table 4.1 Size by Landscape Zone and Management Area

	TOTAL ACRES	Non-native Shrub	Tree/Shrub Savannah	Upland Forest	Upland Meadow	Wetland	Wetland Mosaic	Mowed Grass/Turf	Other*
LANDSCAPE ZONES		**19**	**35**	**25**	**41**	**13**	**22**	**40**	**116**
Habitat	97	11	16.8	10.6	18.7	11.4	22.1	6.4	0
Shoreline	42	6	7.5	0	15.1	1.1	0	9.8	7.3
Promontory Point	19	1.5	0	13	4.8	0	0	0	0
Dog Off Leash	9	0.4	0	1	0	0	0	0	7
Sportsfield	27	0	0	0	2.8	0	0	23.5	0
Community Activity	17	0	10.5	0	0	0	0	0	6.2
Subtotals	**211**	**18.9**	**34.8**	**24.6**	**41.4**	**12.5**	**22.1**	**39.7**	**20.5**
Sand Point East Housing	5	NA							5
Historic District	79	NA							79
Forest Remnant	6	Not calculated							6
Building 193	10	NA							10
TOTAL ACRES	**311**								

* Includes the acreage of four Zones at the bottom of the table, the Fin Art MA, Nearshore MA, Dog Run MA, Community Activities Center MA, and Junior League Playground MA

Note: Acreages are approximations therefore they may not total with complete accuracy

4.1 Identification of Management Areas within Landscape Zones

Described below are the ten Landscape Zones identified within the Park for the Vegetation Management Plan. Within each LZ may be one or more Management Areas, specific areas where regular maintenance activities are necessary to restore, maintain, or nurture the targeted vegetation or vegetation communities. For each

Management Area within each of the Landscape Zones, the VMP provides an annual calendar summarizing the seasonal schedule for that Management Area.

For each Management Area there are clear directions as to what should be done, where it should be done, and when it should be done to maintain the health and vigor of the vegetation. Specific management and maintenance practices, for example mulching, turf maintenance, or removing invasives, are based on and in accordance with the standards within DPR standard best management practices. They are described in Section 6 of this report, with specific modifications and clarifications made for management actions anticipated in Sand Point Magnuson Park.

4.1.1 Shoreline Zone

The roughly 45-acre Shoreline Zone encompasses the entire shoreline area within the Park, with the exception of the Dog Off Leash beach at the far north end of the Park. The western boundary of this Zone is the beach access road and the eastern boundary is the shallow nearshore along the beach itself. This Zone receives some of the most intensive and concentrated use with swimmers, boaters, and walkers using and enjoying beaches, the boat ramp and offshore areas, picnic and bathroom facilities, public art installations, and the shoreline promenade throughout the year.

Ecologically this Zone is a key component of the Park, because it includes upwards of 4500-5000' of shallow aquatic habitat and upland habitat interface. Vegetation in the Shoreline Zone is diverse and reflects this area's dual importance as both a high human use area, as well as an important ecological component of the Park and Lake Washington ecosystem. Vegetation types range from mowed grassland to meadow, formal plantings of landscape trees along the promenade to naturally occurring clumps of willow and black cottonwood along the shoreline, and thickets of invasive shrubs to patches of native shrub communities.

Management Areas

Fin Project
Art installation at the northwest of swimming beach, west of the promenade.

Non-native Shrub
Thickets of predominantly Himalayan blackberry and/or Scot's broom are mostly located in the northern third of the Zone, but also adjacent to the riparian corridor north and south of the boat ramp and in south end of the Zone.

Upland Meadow
These are grassy, unmowed, natural areas dominated by bent grass species, velvet grass, sweet vernal-grass, and forbs, with very few trees or shrubs present. A large area is in the northern third of Zone, with the remainder in two main patches north and south of the boat ramp parking lot.

Tree/Shrub Savannah
These are grassy, unmowed, natural areas interspersed with small clusters of trees or shrubs, found along the southern perimeter of the Zone adjacent to the shoreline and Promontory Point, and north of the boat ramp.

Mowed Grassland
Mowed turf-grass areas are managed for active human use, and are found mostly in the central portion of the Zone associated with the swimming beach, and in the picnic shelter area south of the boat ramp.

Nearshore
This MA is a narrow strip along the length of the shoreline from the wetted bank waterward 10-15'.

Wetland
These are areas dominated by wetland vegetation located north of the boat ramp associated with the swale draining east from the shoreline road. No jurisdictional wetland criteria were investigated in making this designation.

4.1.2 Promontory Point Zone

The Promontory Point Zone, located at the far south end of Sand Point Magnuson Park, is made up of roughly 17 acres in a complex of meadow, upland forest and transitional shrub thicket habitats with fairly good access through the Zone via a well-established trail network. The two larger meadow areas that make up approximately one third of the Zone lie in the western half of the site, separated from each other by a narrow east-west ridge of upland forest.

The central portion of the Zone has a prominent ridge of upland forest rising upwards from the south boundary of the Park to the north boundary of the zone near the NE 65th St. entrance road. This ridge falls off very steeply to the east, where sand and gravel were historically quarried. The resulting cliff wall has become a prime nesting area for cliff-dwelling birds, and is referred to as Kingfisher Basin. South of Kingfisher Basin lies another ridge of upland forest, and to the east, nearest the parking lot for the boat ramp area, lies the Education Pavilion and Butterfly Garden.

Promontory Point has been the focus of significant planning and implementation efforts spearheaded by community volunteers since 1996, focusing on habitat restoration and place-based environmental education.

Management Areas

Upland Meadow
These are grassy, unmowed, natural areas dominated by bent-grass species, velvet grass, sweet vernal grass, and forbs, with very few trees or shrubs present. They are located in three main areas within this Zone – two east-west

running meadows west of the ridge that bisects the Zone, and the area below Kingfisher Basin and including the Education Pavilion and Butterfly Garden.

Upland Forest
These are areas with tree canopy covering at least 6000 sq. ft or areas that cover an equivalent area with a mixture of trees and shrubs. Upland forest is the dominant community type in this Zone, found in broad bands covering the ridges and slopes radiating from the center of the Zone.

Non-native Shrub
Thickets of predominantly Himalayan blackberry and/or Scot's broom are found in roughly ¼- acre patches adjacent to meadows, along edges of the Zone, and in forest areas where there are significant canopy gaps.

4.1.3 Forest Remnant Zone
The Forest Remnant Zone includes two woodland areas flanking NE 65th St. from 62nd Ave. NE eastward toward Sportsfield Drive. Although small, these forest remnants represent vestiges of native vegetation that existed prior to Sand Point's military use. Stand composition and condition vary within the zone. An adjacent cleared area along Sportsfield Drive is included. Appendix D provides additional detail concerning existing vegetation composition, both native and exotic species.

Management Areas

South Woodland
This rectangular area south of NE 65th St. is composed of mostly-intact, mixed native forest dominated by mixed-age Western red cedar, big leaf maple and madrona, with a few Douglas firs. Understory dominants include hazel, Indian plum, sword fern, Oregon grape and salal. A rough cat track approximately bisects the area east to west. The site slopes upward moderately toward the west. Ivy and Himalayan blackberry encroach at the northeast periphery. Because development surrounds this site on all sides, trampling and construction damage also threaten the integrity of its native vegetation.

North Woodland
This wooded area extends from NE 65th St. in a band northward to the abandoned tennis courts and clearing surrounding the former bowling alley. The woodland covers a steep slope paralleling the Historic District's Officer's Row just west above, plus flatter terrain below. The canopy includes mixed native and non-native species and age classes, with broadleaf trees far outnumbering conifers. In the south and midsections, a few large Douglas firs and Western red cedars (perhaps 10 total) intermix with alder, cottonwood and big leaf maple. The area's northerly half includes deciduous native trees plus many non-natives, both mature planted specimens and self-sown progeny: European birch, London plane, horse chestnut, cherry, apple, Norway maple, Sawara cypress and English holly all are represented.

Understory is largely dominated by invasives, with considerable unchecked ivy growth high into tree canopies. Himalayan blackberry is abundant at all peripheries. Vestiges of native undergrowth include sword fern, salmonberry and Indian plum, but these are few and struggling.

Open Forest Margin
This area north of 65th St. and west of Sportsfield Drive, bridges from the wooded slope to the sports field access road. It is abandoned, cleared land once used for a playground. Poorly-drained pockets contain sedges. The majority of the area is vegetated in blackberry patches, rough meadow and colonies of Lombardy poplar saplings.

4.1.4 Historic District Zone

This zone is delineated to exactly correspond with the designated Sand Point National Register Historic District boundaries. The zone is unique within the park both for its overall character and for the requirements by which it is altered or maintained. In addition to twenty Naval Base buildings, twenty-three landscape features and five view corridors have been identified as historic resources contributing to the District.

Many of the zone's trees are included among contributing landscape features, either individually or as groups, among them the row along Sand Point Way and the Deodara cedars along 62nd Avenue NE (once called Deodara Drive). Some remnant historic shrub plantings also are included; these are a faint shadow of the extensive ornamental plantings designed for Base buildings for which archived drawings exist. While these designs are historic due to their age, it is not known if the design where significant for their use of plant materials or due to the designer's name.

Although unified by its historic character, the zone possesses management areas that differ significantly from one another due to original use and vegetation composition. Each is described below.

Management Areas

North Shore Recreation Area
This area is dominated by vast paved areas and a hangar historically used for seaplane landing and storage. Enhancements for aquatic and shore recreation in the future will alter existing vegetation, as will any associated, upslope landscape alterations. Currently, the area contains a mix of native and ornamental plantings, rough meadow, and invasives colonies north and upslope behind the armored shoreline and Building 11. Trees are limited to small groves and rows along zone peripheries, the total count very low (52).

Eleven tree species were identified by inventory, of which three, non-native taxa account for 73% of the population. Two of the dominant taxa are invasive

species which in time should be eliminated from the park (Lombardy poplar and Norway maple); in addition, all individuals of the third (Blieriana plum) pose potential hazards due to structural problems and identified targets. Target presence is exceptionally high in this zone (associated with 94% of inventoried trees), as is number of trees with defects (77%); however, currently low usage around most trees makes this finding less daunting than it might otherwise be.

The inventory excluded sapling natives planted nursery-fashion near Sand Point Way N.E., most of these Oregon ash and Cascara, many struggling and too-densely spaced. Six sizable native conifers are found in the zone, divided equally between Douglas fir and Western red cedar. Tree health in the zone is predominantly good (80%), despite noted species and structural problems.

Sizeable Douglas firs and mixed deciduous trees are concentrated near the area's north end. The recent, young native plantings that parallel Sand Point Way N.E. give way to blackberry thickets and rough vegetation toward the landscaped NOAA entry (which is not within DPR jurisdiction). A designated view corridor runs due north in line with the access road underpass; while this historic vista has no bearing on management of current vegetation, it could affect plant locations in future park development.

Aircraft Industrial Area

Landscape elements are a minor feature in this area, limited to narrow vegetated bands adjacent to buildings and roadways: rows of deciduous trees, ornamental shrubbery, lawn, and peripheral meadow, blackberry and young alder thickets. Pavement and structures dominate. Potential exists that plantings may increase in the future to enhance pedestrian park use, while respectful of original industrial character. Recent tree and shrub additions have been made along 63rd Avenue NE and the north side of Building 2; original planting plans and the 1997 Design Guidelines contain direction pertinent to these areas.

Trees in this large zone total only 73, of which more than 42% are young red maples. Another 9.5% are Lombardy poplars, the remainder scattered among 17 additional taxa. The tree inventory excludes hillside stands of regenerating red alders just west of Building 5, many of which now exceed sapling caliper. Overall tree health is rated as 90% good, the best among Historic District Zone management areas. Targets are associated with two-thirds of trees inventoried; a fairly low (but not exemplary) 40% were identified as having structural defects. These findings mirror the relative youth of the area's trees.

Historic District Core

This area constitutes the heart of historic Sand Point, incorporating all major

Naval administrative and residential buildings, streets and surrounding developed landscape. Mature trees and mowed turf dominate the vegetation, while original and very recent shrub bed plantings provide scattered accents. Pruning, mulching and weed control are little in evidence; past tree topping is visible throughout the area. Historically, the balance was probably quite different. Extensive ornamental plantings were designed for these Base buildings, for which original plans survive. Some, if not all, were installed as individual structures were completed. Research might reveal which historic plantings could appropriately be reinstated.

Identified contributing Historic Landscape Elements include many large conifers – notably 45 of the area's 53 Deodar cedars, a memorial Norway spruce, and a pair of Norway maples recently replaced in kind immediately south of Building 29. Historic view corridors in the area include: eastward along NE 74th St., the 62nd Ave. north-south axis, eastward from between Buildings 26N & 26S. Vegetation will need to be managed with these vistas in mind.

This management area contains 30% of all Historic District trees (215), exceeded only slightly by the Sand Point Way Management Area. A total of 26 taxa were identified by inventory, dominant among these Deodar cedar (25%), hawthorn (16%), English holly (12%) and Sawara false cypress (11%). The remaining 36% are distributed among 22 species, native taxa representing only 7% of the population, in four species.

More than 22% (almost 50 trees) are included as HPRP Plan-identified Historic Landscape Features to be Preserved and Maintained. Such status requires that special attention and protection be accorded these trees, a mandate which may prove challenging to meet in face of hazard and problem-species trees among them – potentially almost half. Appendix C lists identified historic trees and their additional management needs.

Although 80% of the overall tree population is rated as having good health, 72% have structural defects, 25% have been topped, and 65% or more possess associated targets. Compounded with the maturity and size of many area trees, and its high user population, these findings suggest that hazard poses a significant management concern.

A final concern identified through inventory is that 36% of area trees belong to known problem species: these ultimately should be eliminated and sensitively replaced. Preliminary screening indicates that almost one quarter of area trees need to be more fully evaluated for hazard status and mitigation options. In composite, inventory analysis portrays both large magnitude and high priority for active tree management in this area. Appendix C provides further detail.

Officer's Row

This portion of the Historic District consists of the remnant residential landscaping that surrounds three officer's homes now used for teen transitional housing. Overgrown ornamental foundation shrubs remain, with large gaps and variable ivy and weed infestation evident. Adjacent degraded woodland exerts constant invasive plant pressure to the rear of the houses. A resident-planted vegetable garden occupies one small side lawn, little visible from the designated Landscape Feature front yard landscape. Lawn and mostly-deciduous mature trees unify the area's vegetation. A few native conifers and understory plants are present.

Trees inventoried total 61. Because Officer's Row is very small compared to other management areas within the Historic District, its canopy cover is relatively high despite these modest numbers. Species distribution is quite broad (22 taxa), with only two approaching a 10% population share (Blieriana plum and Chinese arborvitae). Natives total about 10% of trees and include Western red cedar and a Pacific madrone.

Half of area trees were found to be in fair condition, another 20% poor. Almost three-quarters have associated targets; equal numbers have defects, and 18% have been topped. Given the round-the-clock residential use of the former officers' quarters, hazard must be accorded elevated attention.

A final noteworthy observation is that the area possesses 23 trees from eight problem species which will need removal over time, both to improve stand health and to reduce invasive plant pressure adjacent to a stand of remnant native forest. Since the entire management area is an identified Historic Landscape Feature, sensitive tree replacement will be required, matching species character as closely as possible to original plant selections.

Golf Greensward

The landscape in this area consists of rolling lawn with scattered large trees and little additional understory. Once used as an informal officer's golf course, its character echoes traditional, naturalistic English greensward. Toward the south end the vegetation approximates a native grove, including several Pacific madrone with a low undergrowth of seedlings, salal, bracken and sword fern competing with invasive ivy and blackberry.

Near the 65th St. entry lie overgrown ornamental shrubs and specimens associated with the former hobby shop, once site of vegetable gardens. This area is already undergoing redesign relative to park entry enhancements; several Lombardy poplars near the southwest corner recently were removed. At the opposite, northeast end is a large Atlas cedar, Sand Point's former official "holiday tree" which continues to provide the visual terminus for designated 62nd Avenue vista. Both this individual cedar and the entire greensward have been formally identified as contributing historic landscape features.

Douglas fir and native cedar dominate the canopy with 26.5% of the area's 102 trees, probably all residual from before Naval development. Among native conifers, nearly two-thirds have defects that could compromise their longevity or safety. Over three-quarters of area trees have identified defects, 38% have been topped, and 70% possess potential targets. Since the Golf Greensward's open landscape character invites park users into close contact with its trees, hazard abatement must be accorded high management priority.

A broken row of twelve topped Norway maple trees parallels Avenue A along much of the area's west edge. At over 20% of area trees, Norway maple is the Golf Greensward's most common species, and together with European birch provides much of the mature deciduous canopy cover. Unfortunately, Norway maple and birch possess significant capacity for invasiveness, already evident in adjacent wild areas. Altogether, nearly half of area trees belong to problematic taxa with strong proclivities for disease, pests, structural deterioration or invasiveness. Through time, therefore, a large turnover in individual trees and taxa must be anticipated, within the context of conserving overall landscape character.

Sand Point Way

This area consists of the narrow, end-to-end band running between Sand Point Way N.E. and internal Avenue A, and a similar breadth continuing northward along the street to the Park's north boundary. The management area is broken at the N.E. 74th St. entry and N.E. NOAA Drive, thus divided by these features into three distinct segments. Sand Point Way's primary vegetation is its long rows of trees identified in the HPRP Plan as an element contributing to historic character. A row of 21 Seattle Transportation-planted red maples is included for purposes of vegetation management planning, since overall landscape character depends on continuity between these and Park trees.

Sand Point Way includes more trees than all other Historic District management areas - a total of 223, nearly one third of the zone's total. Given the large number of trees, a modest 18 taxa are represented, and among these over 80% fall into just six species. The three top taxa alone account for 55% of trees, including in descending order Deodar cedar, Lombardy poplar, and Douglas fir. Deodar cedar makes up 24% of all area trees, their distribution concentrated in tight rows along the south and central segments. Lombardy poplars are located in all three sections, both as groups and interspersed with other trees. Douglas fir is clustered toward the two ends of the south section only.

Red maple, Norway maple and flowering crabapple also are found in significant numbers, primarily as single-species blocks to the north of N.E 74th St. The area's otherwise eclectic palette suggests somewhat random past plant selection and placement. While future replantings must adhere to historic character, it is the effect of long lines of mixed-species trees which needs to be respected, more than the exact, horticulturally-dubious existing configuration.

Extensive topping and excessively close spacing present problems for ongoing management. 69% of trees have structural defects and 44% have been topped, which for conifers usually represents irreparable damage. Virtually all Sand Point Way trees possess significant potential targets; hazard therefore must be considered a key management concern. Sixty percent of trees are in good health, varying considerably among species.

Understory is generally open, varying from weeds and meadow north of the NOAA drive, to rough lawn, with shrub interplanting in limited sections south of Building 9 (Barracks). Historic drawings, perhaps unrealized, indicate rhododendron plantings along the entire frontage of Sand Point Way N.E. in all three sections; no rhododendrons currently exist in the area.

4.1.5 Sand Point East Housing Zone

This zone is visually and physically contiguous with the Sand Point Historic District on the west, north and part of its south side. Two designated historic view corridors relate strongly to this zone, one north-south along 62nd Ave. NE, and one eastward over existing Building 6 toward the lake. Of two remaining military structures in the zone, Building 224 currently is utilized for single-adult housing, while Building 6 is vacant and slated for demolition to develop additional housing.

This Landscape Zone is treated as a single unit, not divided into Management Areas. Vegetation is predominantly lawn, some maintained, some rough, unmown and weedy. Also remaining is considerable pavement associated with parking lots, drives and abandoned tennis courts, some disused and deteriorating with poplar sprouts and blackberry taking hold.

Little canopy exists in this zone. Groups of ornamental trees formally arrayed within the zone include rows of Sawara false cypress and English hawthorn, as well as fruiting apples bordering Sportsfield Drive. Of 37 trees total within the zone, 83% fall into just three taxa, while over half are members of species known for invasiveness, pest or disease problems. Inventory reveals that high percentages possess both defects and potential targets. Appendix C provides further detail on findings and management implications thereof.

Remnant shrub beds bordering parking and buildings contain mixed ornamental species, few native. A row of Chinese elms along the west zone edge has resprouted from basal cuts, to shrublike form. A small vegetable garden, recently developed by housing residents, parallels the south side of Building 224.

4.1.6 Community Activity Center Zone

The Community Activity Center Zone is located directly east of the Historic District and between the ball-fields along the northern boundary of the Park alongside NOAA property. It includes the landscaped Community Activity Center (formerly the Brig) grounds with mowed lawn grass, foundation beds, and

associated streetscape; the Junior League Play Area in the western portion of the Zone; as well as upland meadow in the eastern portion of the Zone. A row of evenly spaced Lombardy poplars follows a 1500'-long stretch of restricted use paved road cutting north-south through the Zone.

Current conceptual planning for this Zone is focused on the development of a 4-acre Community Garden directly east of the Community Activity Center, and expansion of the Dog Off Leash Area into the meadow area to the east of the restricted use road.

Management Areas

Community Activities
This MA is a 5-acre area surrounding and including the Community Activity Center (Building 406, formerly the Brig). The vegetated grounds consist of mowed lawn and landscape plantings in beds around the building and along the parking area and NE 74th St.

Junior League Playground
The Junior League Playground lies in the south of the Zone and includes an area of roughly just under an acre that encompasses the playground and picnic shelters, mowed lawn areas, groups of specimen trees, and planting beds along the western edge of the playground.

Tree/Shrub Savannah
This approximately 10-acre MA makes up the eastern half of this Zone, and consists of upland meadow with 80-100 non-native poplars mostly located along the gated road that bisects the MA.

4.1.7 Sportsfield Zone

Two playfield areas are present in the Park. The Sand Point fields are located due east of Sportsfield Drive. The Magnuson fields are located further north, and are bordered to the north and west by the Dog Off-Leash Zone. Both sets of fields are grass, managed as turf for baseball, soccer, rugby and ultimate Frisbee team sports.

Management Areas

Turf
The sportsfields are dominated by managed rough turf that is regularly mowed during the growing season. No fertilizers are used on the ball field surfaces, however they are regularly over-seeded to restore and increase the turf vigor.

Upland Meadow
To the east of the Magnuson fields is a small area of grassland adjacent to the fields, which is not managed as turf. This upland meadow is dominated by a mixture of native and non-native pasture grasses.

4.1.8 Habitat Zone

This is the largest Zone and is the portion of the Park located east of Sportsfield Drive and the Sand Point fields, south of the Dog Off-leash Zone, and west of the Shoreline. Within the roughly 80-acre Habitat Zone there are seven Management Areas identified. This Zone has some of the greatest variety and acreage of different habitat types, and is characterized by early successional plant communities that have established in the years since the late 70's when Naval Station Sand Point was decommissioned. None of the existing vegetation in this Zone is remnant from plant communities existing prior to development of the site as a naval station as the entire Zone was dramatically altered. The Zone consists mainly of large expanses of upland meadow and wetland mosaic, with fragments of early seral upland forest areas (mainly black cottonwood and madrone), and large areas of non-native shrub thickets.

Management Areas

Non-native Shrub
These are areas generally dominated by monotypic swaths or thickets of Himalayan blackberry. These impenetrable thickets provide refuge habitat for some passerine birds and small mammals from domestic dogs and native predators, as well as a food source. They are wide-spread throughout the Habitat LZ in both upland and marginal wetland settings, occurring extensively in the northern half of the LZ.

Upland Forest
These are areas dominated by native black cottonwood trees, with some madrone, scattered big leaf maple and red alder present (though not common). There is very little native understory or diverse herb layer. Many of these upland forests contain invasive non-native woody species such as Himalayan blackberry, Scot's broom, hawthorne, non-native grasses and scattered reed canary grass as an 'understory'. The main upland forest patches are found immediately east of the parking lot of the swim beach, south of and between the two bunkers (at the southern limits of Kite Hill), and in scattered clusters near the south and eastern limits of the Habitat Zone. None of these upland forest patches is larger than roughly 2 acres in size.

Upland Meadow
These are unmowed grasslands interspersed with the wetter meadows within the wetland mosaic in this Zone. Visually it is difficult to discern between these two MAs. The upland grasslands include some of the same species as found within the wet meadows including bent-grass, fescue, and Kentucky blue grass. Along with the wetland mosaic MA, upland meadows represent the dominant habitat type in this Zone.

Tree/Shrub Savannah
These are areas within the Habitat Zone where scattered trees are widely spaced within a forb/grass dominated landscape. The trees are too wide-spread to create a forest, yet they are dominant enough to preclude this MA from being identified as simply grassland. The trees within this MA may be native black cottonwood, native Oregon ash, non-native hawthorns, non-native Lombardy and/or white poplars. The grasses are similar to those identified within the Upland Meadow MA, and there may also be thickets of non-native Himalayan blackberry within this MA. This MA is prevalent along the eastern third, as well as in the south-central portions of the Zone.

Mowed Grassland
Some grassy portions of the Habitat Zone are currently mowed on a regular basis and do not function as meadow. The largest of these areas occurs on Kite Hill, where a roughly 4.5-acre area along the top and eastern flank of the hill is kept mowed. Other mowed grassland areas are primarily along the margins of the Zone in narrow strips along roads and pathways, and near the existing tennis courts.

Wetland
The areas inside of the park have been identified and labeled as wetland based on their biological characteristics. No delineations have been conducted and no jurisdictional determination of the extent of wetland in the Park has been conducted.

FORESTED

The forested wetlands are predominantly scattered stands of black cottonwood encircling closed depressions on the eastern portions of the Habitat Zone. These areas lack much herbaceous understory, however some of them have sparse coverage of spike rush. Understory shrubs may include native willows and some hardhack (spirea). In the southwestern end of the Habitat Zone is a small stand of Oregon ash (older trees with many younger saplings) as well as black cottonwoods. A small stand of quaking aspen is present to the southwest, just north of the auxiliary parking lot (west of Building 193). It is unknown if this is a native stand, but more likely it is the off-spring of planted landscape specimens from the Naval Air Station days.

SEASONAL MARSH

These are the small closed depressions that hold 6" to 18"of water long enough into the growing season to strongly influence the type of vegetation growing within the depression. Some, like "Frog Pond" (located due SW of the parking lot located in the interior of the Habitat Zone) have quite a large species diversity including bulrush, numerous sedges and spike rushes, rushes, as well as traces of cattail. Less diverse seasonal marshes are dominated by various spike rush species, with few sedge species scattered along the margins. Some of the seasonal marshes include a 'ring' of native woody shrubs and saplings just establishing. These include willow species, hardhack, black cottonwood, some red alder, and an occasional Oregon ash. Several of the larger, shallower marshes have some limiting soil conditions, that no vegetation has established within the inundated zone. This may remain constant until sufficient organic debris accumulates in the bottom of these areas to provide adequate growth substrate for plants.

Wetland Mosaic

The wetland mosaic is located mainly in the northwestern to west-central portion of the Habitat Zone. It is characterized by a broad sweep of Baltic rush, with traces of sweet vernal grass, velvet grass, smooth rush and reed canary grass interwoven with upland grasses dominated by bent grass and fescues. These areas are labeled mosaics because they are a complex mixture of wet and upland habitats scattered across a very flat landscape. These areas are differentiated from the Seasonal Marsh wetlands by the lack of species diversity and the lack of long-term inundation. The wet portions of the mosaics are wet because slight depressions in the compacted soils prevent water from infiltrating and the relatively flat topography prevents water from flowing off-site. This management type comprises a majority of the Habitat Zone.

4.1.9 Dog Off-leash Zone

This Zone is located to the south and east of the Junior League Playfield, north of the Magnuson Fields and Kite Hill, and stretches east to the lakeshore. The Dog Off-leash Zone has a long, narrow footprint, and forms the northern boundary between the Park and NOAA. This Zone is characterized by wood chip and gravel pathways for dog-walking, and includes a small ½-acre patch of upland forest at the west end, and a portion of lakeshore at its eastern end with approximately 120 lineal feet of shoreline. The majority of the landscape within the existing dog run is woodchip with very little vegetation present; therefore there is no "vegetation management" for that portion of the off-leash. It is explained in more detail in Section 5, that the Off-leash area is currently under proposed revisions. It is proposed to enlarge the off-leash area, incorporating a larger portion of adjacent upland grasses, as well as small elements of spirea wetland to the south. The proposal is to seasonal fence portions of the off-leash to keep dogs and humans out, while it is also proposed to enhance some existing adjacent wetlands, create new wetlands, and enhance upland buffer that is dominated by non-native blackberry.

Management Areas

Upland Forest
On the far west end of the Zone is a small woodland stand characterized by a dense grove of madrona saplings on the west margin. In addition, this woodland includes non-native birch saplings, black cottonwood, and some scattered red alder and big leaf maple. All the trees are sapling stage, probably no more than 10-15 years old.

Non-native Shrub
At the eastern end of the Zone there are extensive swaths of Himalayan blackberry immediately landward of the lakeshore. Within this area is also one very large non-native weeping willow specimen on the shore.

4.1.10 Building 193 Zone

The area immediately adjacent to the 65th Street entrance road into the Park, lying west and north of the old Commissary is characterized by a large parking lot, storage area, debris piles. It is largely unvegetated, but is included here as a Landscape Zone because of the landscape plantings that are present within the parking lot strips. Existing vegetation in these parking strips is remnant and neglected, consisting mainly of pin oak (*Quercus palustris*), barberry (*Berberis sp*.), and strawberry tree (*Arbutus unedo*) interspersed with weedy species such as Himalayan blackberry. No MAs are identified within this Zone.

4.2 Management Goals and Objectives by Landscape Zone

This Vegetation Management Plan for Sand Point Magnuson Park has been structured on significant public effort that has come before it (see Section 2, an overview of adopted applicable City-wide and SPMP-specific plans). To assure that the long-term management of the vegetation within Sand Point Magnuson Park is conducted within the intent and purpose of this Vegetation Management Plan, the goals and objectives for each of the identified Landscape Zones and Management Areas within the Park are outlined below. These goals and objectives are derived from work that has been publicly adopted for the City and for SPMP, as well as from input through the public process for this Plan, and the best professional judgment of the contributing authors and City staff.

4.2.1 Shoreline Zone

Goal: Restore and enhance shoreline fringe for improved public access

Objectives

- Remove rubble and debris from shoreline and nearshore area.
- Reshape portions of shoreline by regrading and restoring sloping beach areas.
- Plant trees and shrubs to provide shoreline interest and pockets of shade while maintaining selected view corridors along the shoreline.
- Manage shoreline vegetation to discourage use by Canada geese and other urbanized waterfowl.

Goal: Restore and enhance shoreline fringe for native fish habitat

Objectives

- Remove rubble and debris from shoreline and nearshore area.
- Restore shallow littoral zone by regrading to create more natural slope at water's edge and beyond.
- Plant trees and shrubs to provide overhanging vegetation (shade, cover, and nutrients) in the nearshore environment.
- Manage shoreline vegetation to discourage waterfowl use (minimize nutrient loading).
- Retrofit existing docks with fish-friendly decking to discourage non-native predator fish.

Goal: Improve quality and diversity of vegetation for habitat connectivity.

Objectives

- Remove and/or control non-native invasive species in uplands and along shoreline and replace with natives.
- Increase plant species diversity with the addition of native species.
- Evaluate existing specimen trees and replace as appropriate depending on health and habitat value.
- Establish diverse vegetated connection between lakeshore and Promontory Point habitats.

Goal: Maintain special management areas as specified in Maintenance Agreements.

Objective

- Maintain Fin Project area as grassy meadow with adjacent wildlife habitat areas of native woody species by mowing and weeding as specified in Maintenance Agreement.

4.2.2 Promontory Point Zone

Goal: Preserve and enhance Promontory Point as native habitat for wildlife, especially birds.

Objectives

- Remove and/or control non-native invasive species and replace with natives.
- Preserve existing known valuable habitat areas and enhance them.

4.2.3 Forest Remnant Zone

Goal: Reclaim, restore and expand residual native forest.

Objectives

- Actively control and ultimately eliminate invasive exotic plants, including trees.
- Mitigate tree hazards through snag creation or removal where required.
- Supplement existing native understory and canopy tree populations.
- Expand forested area to encompass and restore adjacent degraded land.
- Integrate woodlands with adjacent existing or anticipated native plant communities.

Goal: To the maximum extent possible, create a rich and self-sustaining native plant community.

Objectives

- Protect native vegetation from encroachment by surrounding park development.
- Coordinate restoration efforts to create an authentic natural character, which can serve as both an anchor and model for reclamation of the Park's disturbed larger landscape.
- Establish a substantially self-sustaining woodland plant community.
- Discourage human access to forest interior except for stewardship activity.

Goal: Integrate N.E. 65th Street corridor with Zone's native forest character.

Objectives

- Extend unifying native plantings along right of way, especially canopy trees.
- As much as possible use native vegetation to mitigate off-site conditions that reduce park integrity.
- As much as possible use native species to buffer vehicular lanes from bicycle and pedestrian traffic.

- Utilize non-native species only if necessary to satisfy other right of way requirements.

4.2.4 Historic District Zone

Goal: Protect and enhance Sand Point's historic landscape qualities, safeguarding continuity while accommodating appropriate change.

Objectives

- Preserve and enhance existing landscape plantings of the Naval Station to maintain its historic, predominantly 1930's character.
- Encourage new projects and restorations to adhere to stylistic landscape character of the historic era, reflecting actual archival design whenever available.
- Recognize and respond to new needs which result from altered site uses, without compromising the integrity of historic vegetation.
- Safeguard historic district vegetation from cumulative damage and incremental destruction resulting from inappropriate maintenance, planting or neglect.
- Foster public appreciation and enjoyment of Sand Point's historic vegetation through diverse modes of interpretation.

Goal: Educate maintenance staff and others who care for the Historic District vegetation regarding the common vision and management ethic.

Objectives

- Provide education seminars and interpretative events to all property owners, staff, tenants, citizens and design professionals engaged in the care or alteration of Sand Point vegetation.
- Develop specific vegetation management, maintenance and monitoring guidelines that are consistent with specific HPRP Plan requirements and cultivate their use by all parties.

Goal: Maximize sustainability of Historic District vegetation, while respecting its historic landscape character.

Objectives

- Develop a plant palette for new plantings appropriate to contemporary horticultural and environmental needs, minimizing use of chemicals, water and labor.
- Integrate native plant species and vegetative structure in locations and ways which do not detract from overriding 1930's era landscape character.
- Exploit transitional District edges for native planting opportunities.
- Improve habitat value by restoring richer understory plantings to Historic District.
- Implements appropriate landscape Best Management Practices.

Sand Point Way Management Area

Goal: Maintain and enhance the quality of the tree row edging Sand Point Way, in a manner consistent with its historic character.

Objectives

- Remedy existing tree health and hazard problems.
- Foster species diversity while retaining consistent overall character.
- Integrate tree row with park gateway landscape treatment at NE 65th St.

Goal: Soften Sand Point Way edge vegetation to achieve a more welcoming, attractive character, consistent with historic intent and contemporary park identity.

Objectives

- Reinstate appropriate understory plantings that balance current and historic design and selection criteria.
- When possible, eliminate landscape elements that detract from current park edge character.

Golf Greensward Management Area

Goal: Preserve area's traditional informal, semi-native open space character.

Objectives

- Retain existing canopy mix, configuration and density through appropriate tree care and regeneration planting.
- Enhance quantity and extent of native understory, especially along south periphery.
- Eliminate undesirable weedy non-native plants, including trees, and replace where needed with aesthetically and culturally appropriate species.

Goal: Establish with plantings a strong sense of park entry, identity and destination.

Objectives

- Through a collaborative process between DPR, Seattle Transportation and community, create unified tree palette and landscape treatment for Sand Point Way intersection.
- Implement future NE 65th Street improvements in a manner respectful of area's historic golf course/greensward heritage.
- Reinforce native tree presence along Park entry corridor.

Officer's Row Management Area

Goal: Perpetuate original 1930's residential landscape character within context of modified contemporary use and management.

Objectives

- Retain vestige ornamental plants, replacing in kind and location where retention is not feasible.
- Remove invasive and weedy plants encroaching on historic plantings.
- Where feasible, replace plantings consistent with archived original landscape plans.

- Reinstate appropriate plantings that balance current and historic design and selection criteria.

Goal: Foster resident participation in landscape preservation and care.

Objectives

- Develop opportunities and clear guidelines for resident involvement in historic landscape restoration and stewardship.
- Educate managers and residents about the responsibilities accompanying an identified Historic District "landscape feature."
- Define areas where residents may engage in personal gardening initiatives without detriment to overall traditional landscape character.

Sand Point Historic Core Management Area

Goal: Retain and enhance character-defining historic landscape features, including trees, vistas and understory plantings.

Objectives

- Refer to Design Guidelines Manual for Sand Point/Magnuson Park as it pertains to vegetation.
- Develop grounds maintenance practices that will prevent resource degradation.
- Remedy inherited tree health and hazard problems, fully replenishing canopy stock with identical or closely related taxa.
- Evaluate fidelity of current understory plantings to historic landscape character, correcting deficiencies as needed.
- Identify and exploit opportunities to reinforce historic landscape character through individual planting and site development project.

Goal: Achieve integrated resource management reflecting a shared understanding and respect for historic site vegetation and landscape design.

Objectives

- Refer to Sand Point Historic Properties Reuse and Protection (HPRP) Plan Standard Operating Procedures.
- Cultivate pride and understanding reflected in appropriate decision making and landscape care, across agencies and interest groups, at all levels.

Goal: Foster resident and community engagement with the landscape through stewardship and education.

Objectives

- Create opportunities and clear guidelines for volunteer and resident involvement with landscape rehabilitation and ongoing care.
- Develop interpretive programs and publications to heighten public awareness of historic vegetation's contribution to Sand Point's character.

Aircraft Industrial Management Area

Goal: Enhance historic character with plantings that reinforce both the designated 63rd Avenue view corridor and the industrial nature and scale of the area's structures.

Objectives:

- Line 63rd Avenue with small, narrow-profile trees to frame the designated view corridor without obscuring hangar facades.
- Supplement existing vegetation to impart human scale, while retaining area's bold utilitarian simplicity.
- Reference, restore, and where feasible, reinstate area's historic plantings.

Goal: Improve vegetation quality and appearance between hangars and Sand Point Way, consistent with industrial character and period landscape vestiges.

Objectives:

- Where feasible eliminate or consolidate pavement and expand vegetative areas.
- Reinstate historic Naval Station fruit orchard in vicinity of vestige trees.
- Eliminate weedy invasive plants and renovate existing ornamentals.
- Supplement plantings consistent with available historical documentation.

North Shore Recreation Management Area

Goal: Expand and enhance lake edge plantings for habitat, unifying with upland native vegetation.

Objectives:

- West of existing pier, install wildlife-friendly lake-edge plantings, consistent with shoreline restoration throughout the Park.
- Reinforce native vegetation linkage upslope from shoreline habitat, accommodating current and future upland passive-recreational use.

Goal: Maintain open, treed, informal character of existing upland vegetation, accommodating anticipated bicycle trail and picnic area development.

Objectives:

- Control and remove non-native invasive and weedy species.
- Enhance canopy by adding scattered appropriate native trees, and relocating existing, closely-spaced young trees.
- Emphasize native plants with ornamental qualities where new usage patterns or replenishment needs dictate.

4.2.5 Sand Point East Housing Zone

Goal: Improve quantity, quality and condition of vegetation.

Objectives:

- Maintain all healthy, non-weedy existing vegetation until development occurs, supplementing plantings if interim becomes protracted.
- Eliminate weedy and invasive plants. Replace deteriorating, unused pavement with habitat-enhancing vegetation.

Goal: Fulfill evolving vegetation-related needs without compromising Sand Point's historic landscape character.

Objectives

- When siting new plantings or structures, respect designated historic view corridors eastward toward Lake Washington and along 62nd Avenue NE.
- Design landscape alterations to reflect historic Sand Point planting plans, patterns and palette.
- Foster opportunities and establish guidelines for residents to help develop and care for site plantings.

Goal: Integrate disparate adjacent uses and landscape characters through use of vegetation.

Objectives

- Provide appropriate transitional vegetation at east and south margins of zone, emphasizing native species.
- Maintain strongly historic character along west edge of zone, honoring adjacent landscape features of key importance.

4.2.6 Community Activity Center Zone

Goal: Improve quality and habitat value of natural area portions of Zone.

Objectives

- Remove and/or control non-native invasive species and replace with natives.
- Locate replacement plantings to maximize value to wildlife.

Goal: Maintain safe and enjoyable formal play spaces for children.

Objective

- Maintain play structures, turf, and trees for play, shade, and picnicking in playground area.

Goal: Create and maintain landscape for community involvement, stewardship, and education.

Objective

- Further develop concept plan for Community Garden.

4.2.7 Sportsfield Zone

Goal: Maintain fields for active organized sports events as well as non-organized recreational sports activities.

Objective

- Maintain routine mowing and turf care activities within the sportsfield complex.

4.2.8 Habitat Zone

Goal: Preserve and enhance native plant communities to benefit habitat for wildlife.

Objectives

- Remove and/or control non-native invasive species and replace with natives.
- Enhance existing habitat areas, increasing species diversity and structural complexity by planting additional native species in all vegetation community layers.
- Prevent alterations to the contributing basins of the seasonal marshes that will affect the hydrology of these wetlands.
- Manage the meadow areas such as to prevent the establishment of woody invasives (e.g., blackberry, Scot's broom), while protecting spring ground-nesting birds and providing late-summer seed sources for feeding resident and migratory birds.

Goal: Increase habitat niches for a variety of wildlife species, including amphibians, birds, and small to medium size mammals while increasing on-site nutrient cycling.

Objectives

- Create brush piles throughout the habitat zone from woody debris removed through other on-site maintenance activities.
- Create large woody debris on the ground from using or importing logs and stumps from native trees from on-site or off-site sources.
- Allow native shrubs and tree saplings to establish (or augment with native plant installations) around the perimeter of seasonal marshes to provide critical upland habitat to meet all life stages of amphibians.

Goal: Reduce habitat fragmentation.

Objectives

- Increase patch size of native shrub and forested habitat with supplemental and replacement planting along edges.
- Encourage patch enlargement of targeted habitat types to increase amount of interior habitat over time rather than increasing amount of exterior edge.

Goal: Increase habitat connectivity across site by linking various habitat types.

Objectives

- Create canopy connectivity between Promontory Point and existing wetland areas on the southeastern limits of the habitat zone.
- Link existing forest patches with supplemental and replacement planting along edges.

4.2.9 Dog Off-leash Zone

Goal: Provide space for active dog use without posing risk to native vegetation communities or critical habitat areas.

Objectives

- Fence sensitive habitats and vegetation community types securely within and adjacent to the Off-Leash Zone.
- Control erosion at the lakeshore to protect fish resources while allowing dog access to the water.
- Provide biofiltration for water running off the main portions of the OLA prior to its discharge into Lake Washington.

Goal: Enhance habitat for critical species where possible.

Objectives

- Restore gravel substrates within the beach zone and immediate underwater nearshore habitats, subject to WDFW permit and approval.
- Replace non-native invasive woody plants (e.g., Himalayan blackberry) within the nearshore habitat areas with appropriate native woody species that will provide bank stabilization and overhanging vegetation.

4.2.10 Building 193 Zone

Goal: Manage landscaped areas to ensure the health and vigor of the installed plants.

Objective

- Prune, replace, and mulch the existing vegetation to promote health of the trees and shrubs.